

REMARKS/ARGUMENTS

Reconsideration of this application is requested. Claims 5, 10, 11 and 13-17 are in the case.

I. THE ANTICIPATION REJECTION

Claims 1, 3-4, 10 and 11 are rejected under 35 U.S.C. §102(b) as allegedly anticipated by Crane (US 3,458,414). The rejection is respectfully traversed.

As claimed, there is provided a filtering process using an electromechanical filtering unit comprising a conduit capable of conducting electricity, at least one first electrode connectable to a high voltage power supply (EHT) and at least one second electrode having a plurality of discrete openings which is earthed wherein the electrodes are positioned within the conduit and connected to the conduit such that electricity can pass between the electrodes via the conduit, for removing solid catalyst particles suspended in a hydrocarbon liquid. The process comprises (a) passing the suspension through the conduit in a direction such that the first electrode is upstream of the second electrode with respect to the directional flow of the suspension, and (b) generating an electric field within the conduit by connecting the first electrode to the high voltage supply, such that the solid catalyst particles attach themselves to the second electrode and a hydrocarbon liquid with a reduced solids content passes through the conduit.

In response, and without conceding to the rejection, claims 1-4 have been canceled without prejudice. The anticipation rejection as it applies to claims 1-4 has accordingly been rendered moot.

Claim 5 is not rejected on anticipation grounds. As amended, process claim 5 provides a process for the filtration of catalyst particles from a hydrocarbon liquid.

Claim 5 as amended is also not disclosed by Crane. The device disclosed Crane is used for the treatment of water (the treatment of swimming pool water) and is not used in a hydrocarbon liquid.

Claims 10 and 11 as amended are each dependent on claim 5 and are not anticipated by Crane for the same reasons that claim 5 is not anticipated by Crane. Withdrawal of the anticipation rejection is respectfully requested.

II. THE OBVIOUSNESS REJECTIONS

Claim 2 stands rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Crane (US 3,458,414) and further in view of Sale (US 6,709,567). Claims 5 and 12 are rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Sale in view of Crane of record for reasons of record. Claim 13 is rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Sale in view of Crane and further in view of Crose *et al.* US 5,647,965 (Crose). The rejections are respectfully traversed.

With regard to claim 2, that claim has been canceled without prejudice. Withdrawal of the obviousness rejection of claim 2 is respectfully requested.

With regard to the rejection of claims 5 and 12 over Sale in view of Crane, the Action states (page 2) that:

“The Sale patent teaches the method, wherein hydrocarbon containing solutions can be treated in the process (see col. 3, lines 15-25)”.

This disclosure does not suggest a filtering process to remove catalyst particles from a hydrocarbon liquid, as now claimed in claim 5. First, the process described by Sale is not a filtering process. With regard to the disclosure in Sale at col. 3, lines 15-25, this is not a disclosure of employing the device disclosed in Sale in a hydrocarbon liquid. Rather, it relates to using the process disclosed in Sale for treating ground water. The hydrocarbons disclosed are some of the potential contaminants of the water which may be treated by the process of Sale. In particular, Sale describes that the contaminants in the ground water to be treated would be degraded, and in the chemical reactions disclosed at col. 3, lines 25 to 50, it can be seen that the contaminant present in the ground water is fully degraded at the electrodes. Sale, therefore, is clearly directed to the treatment of an aqueous liquid, and not to the treatment of a hydrocarbon liquid.

As Sale does not suggest an electromechanical filtering process, and since the process of Sale is performed in contaminated ground water, one of ordinary skill would not have been motivated to arrive at the process of claim 5 based on Sale. Crane likewise does not suggest an electromechanical filtering process. The process of Crane is performed in swimming pool water.

In light of the above, it is clear that the invention as claimed is not suggested by Sale or Crane, taken singly or in combination. Even if one having ordinary skill in the art had attempted to combine Sale and Crane (it is believed this would not have occurred), the presently claimed invention would not have resulted or have been rendered obvious thereby, because Sale and Crane are both concerned with treatment of water.

With regard to the obviousness rejection of claim 13, the Action states that:

“The Crose patent teaches the well understood mechanism for the removal of particles by selecting the size of particles being treated, one having ordinary skill would design the size of the holes through which the solution would move...”.

However, the method by which the catalyst particles are removed in the presently claimed process is not through the particles being larger than the holes, but is through the electric field generated by the electromechanical filtering unit defined in the claims. There is nothing in Crose that would have led one of ordinary skill in the art to construct an electromechanical filtering unit as defined in the newly amended claims, nor would one having ordinary skill in the art have been motivated to devise a process for filtering catalyst particles from a hydrocarbon liquid based on Crose, taken alone or in combination with Crane. Withdrawal of all of the obviousness rejections is respectfully requested.

V. AMENDMENTS

Claims 1 to 4 have been canceled without prejudice. Claim 5 has been amended to define the electromechanical filtering unit in accordance with the definition provided in canceled claim 1, to define that the solid particles are catalyst particles, and that the liquid is a hydrocarbon liquid (cf. claim 12). Since the subject matter of claim 12 has been incorporated into claim 5, claim 12 has been canceled without prejudice. Claims 10 and 11 have been amended to refer back to the filtering process of claim 5. The subject matter of deleted claims 2 to 4 has been redrafted as new dependent claims 14-16 referring back to the filtering process of claim 5. An additional new claim 17 is presented specifying that the catalyst particles are Fischer-Tropsch catalysts comprising

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at least one element selected from iron, cobalt and ruthenium. Basis for this claim can be found at page 7, lines 19-23 of the published PCT specification

WO 2004/082825 A1. No new matter is entered.

Favorable action is awaited.

Respectfully submitted,

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